

XXIX.—*Some Birds of Palawan, Philippine Islands.*

By WILLOUGHBY P. LOWE, M.B.O.U.

ON April 13, 1907, I accepted a pressing invitation to visit a cousin, Colonel White, who had charge of the Philippine penal colony at Iwahig, Palawan. Being himself much interested in natural history, and ornithology in particular, though having little leisure to collect, he was anxious that I should join him and make a collection of birds. I accordingly left London by P. & O. mail-boat for Hongkong, *viâ* Colombo. At Hongkong I travelled by a small steamer to Manila. On my arrival there, on May 21, I found there was no boat leaving for Puerta Princesa until June 4, so I decided to visit the great sulphur spring and baths at Sibul, Luzon, where I arrived on May 24. Here I found birds to be plentiful, and I spent such time as was at my disposal collecting. Of these birds and a few others collected subsequently on my return at Antipolo and Montalban before returning home I do not intend to include in this paper.

Leaving Manila on June 4 in a small gun-boat—the ‘Panay’—I duly arrived at Puerta Princesa three days later. Here I was met by Col. White with a launch, and proceeded up the beautiful Iwahig River to the penal settlement, where there were roughly 1000 prisoners engaged in every kind of work. The island is very fertile, and for the most part covered with virgin forest which cannot be penetrated. However, there are a good many spaces that have been cleared by convict labour, and wonderful crops are grown. It is in these clearings that most of the birds resort, as they like the fresh air and sunshine, where there is more insect-life. Certain species, however, prefer the forest, where grow giant trees of incredible size covered with all sorts of parasitic plants and entwined with a tangle of vines and creepers, and the trunks of these trees are covered with minute snails. Here is the home of the lovely Palawan Peacock-Pheasant, which never

appears to venture into the true light of day, for the sun does not penetrate his damp and lonely solitudes.

During my stay the prisoners cut a trail of some miles through the forest, and though I spent a considerable time searching, I found nothing of special interest. As is usual in working in this kind of country, I lost a large percentage of the birds shot, the undergrowth being so thick. I also did a good deal of work wading up the streams which rise on the high ground, and collecting any birds that ventured out from the forest. As the island had already been visited by various well-known collectors, there was little or no chance of finding new species. Many interesting and rare forms were, however, secured, as well as two species that had not previously been recorded from the island. This collection was later acquired by the British Museum, and as nothing has been written about the work done, I thought a list of the birds and a few notes that I was able to make might be of interest. The list contains 82 species, and is complete, with the exception of three examples of the genera *Sterna*, *Totanus*, and *Anthus*, which I have unfortunately not been able to find in the great collection in which they have been incorporated. The following birds were seen but not procured:—

*Macropygia tenuirostris*, *Falco peregrinus*, *Falco severus*, *Pandion haliaëtus*, and *Gymnolæmus lemprieri*.

I am greatly indebted to Col. White for all he did to help me and my work, and also for getting the prisoners to snare birds and other creatures; to Mr. Ogilvie-Grant for allowing me, during a very busy time, access to the collection; and also to Mr. Chubb and Mr. Wells in helping me to find the birds. In preparing this list I have followed the nomenclature and classification of McGregor's 'Manual of Philippine Birds.'

*Megapodius cumingi*.

a. ♂?. July 18, 1907.

An immature male, very like one collected at Puerta Princesa by Everett. I had little opportunity for studying

these birds, though the convicts reported that they were common, and they succeeded in snaring several birds, which they brought in alive. I turned them all loose except the one above enumerated. They run very rapidly.

**Gallus gallus.**

*a.* ♂ ad.

The Red Jungle-Fowl was very common, and frequently heard crowing in the early morning. They were often seen in dense forest scratching amongst the undergrowth. They also frequent the open clearings to feed on maize and other crops. At such times, if cut off from the forest, they take to wing and afford good shooting. The prisoners brought in daily live birds of all ages and sexes. The flesh, though eatable, is very tough.

**Polyplectron napoleonis.**

*a, b, c.* ♂ ad. ; *d, e, f.* ♂ juv. ; *g.* ♀ ad. ; *h, i.* ♀ juv.

The three adult males are in full plumage and show a narrow superciliary stripe. Another immature bird, which has nearly completed the moult, shows no sign of any such mark, whilst a still younger bird with a brown back mottled with green and a brown crest, has a larger and wider stripe than any of the others. A young male taken on June 29 closely resembles the adult female, but the crest is less developed and the lores are blackish. The Palawan Peacock-Pheasant, though common in the forests, is but seldom seen except by natives. On July 8 I was walking along a narrow trail with dense forest on either side, when an adult female flew across the path. A lucky snapshot through the bushes killed her. This was the only occasion I saw the bird, the others being snared and brought in alive by the convicts. Col. White told me that he had tried several times to keep these birds alive in a large wire enclosure in company with Jungle-Fowl, but they refused to eat any kind of grain and soon died. In a wild state they feed on something not unlike a small acorn, but I was never able to find the tree or bush on which it grew. The flesh is delicious and tender.

**Turnix fasciata.**

*a.* ♀ ad.; *b, c.* ♂ imm.; *d, e.* ♂ & ♀ in down.

The Philippine Button-Quail, though common in the long grass, is only put up accidentally. On June 1 I flushed an old bird right at my feet. I searched for eggs, and was rewarded by a nice pair of nestlings only just hatched.

**Treron nipalensis.**

*a, b.* ♂ ad.; *c.* ♀ ad.; *d.* ♂? juv.

These Thick-billed Green Pigeons were common in the forests. The chief peculiarity that strikes one about the fruit-pigeons is that they do not seem to sit across the branch as do most birds, but sit and walk along the branches, which, when the tree is tall and the branches moderately thick, makes them difficult to see and still more difficult to shoot. I have often seen this and other pigeons moving, snake-like, along a branch to its extremities to feed on the fruit of the wild rubber. The young bird, obtained on July 29, has only just left the nest and is lacking in feathers around the bill.

**Osmotreron vernans.**

*a, b.* ♂ ad.; *c, d, e, f, g.* ♀.

The Pink-necked Green Pigeon is abundant in and around the edges of the forest.

**Leucotreron leclancheri.**

*a.* ♂ ad.; *b.* ♀ ad.; *c.* ♀ imm.

The Black-chinned Fruit-Pigeon was noticed in moderate numbers during June and July, always in the trees overhanging the rivers and feeding on rubber fruit. As a rule they fell when shot in deep water, and owing to the presence of crocodiles had to be abandoned. The immature female lacks the dark spot on the breast, otherwise it resembles an adult.

**Muscadivores palawanensis.**

*a.* ♂ ad; *b, c.* ♀ ad.

The Palawan Imperial Pigeon is one of the most common birds. In the evenings I frequently noticed them flying

very high across the open spaces between the forest, and at such times they offer excellent shooting, though it requires some skill to make a good bag. I did not find any nests, and the birds shot showed no signs of nesting.

**Spilopelia tigrina.**

*a.* ♂ ad. ; *b.* ♂ juv. ; *c, d, e, f, g, h.* ♀ .

The Malay Spotted Dove was quite common. It prefers the cultivated ground, especially banana plantations and vicinity of houses. It was not noticed in the forest.

**Chalcophaps indica.**

This handsome Bronze-winged Dove keeps to the dense forest, where its plumage harmonises so well that it is difficult to see. At times when I was sitting quietly beside a small stream, it came to drink in company with *Irena tweeddalii*.

**Rallina fasciata.**

*a, b.* ♂ ad.

I did not see the Malay Banded Crake, though I noticed its footmarks in the mud. These two fine males were snared by natives.

**Actitis hypoleucos.**

*a.* ? ad.

Common.

**Ardea sumatrana.**

*a.* ♀ imm.

The large Ashy-grey Heron was met with on several occasions near the mouth of the Iwahig River at low water. It was not noticed along the streams on higher ground. The one shot was feeding on fish.

**Nycticorax manillensis.**

*a.* ♀ ad. July 21, 1907.

McGregor does not mention this species as occurring in Palawan. I obtained this specimen of the Philippine Night Heron near the landing on the Iwahig River. It was perched in some trees, and was the only one seen.

**Gorsachius melanolophus.**

*a, b.* ♂ imm. ; *c.* ♀ imm.

The Malay Bittern is very common and feeds largely on beetles.

**Bubulcus coromandus.**

*a.* ♂ ad.

Very common, and seen with native cattle and water-buffaloes.

**Ixobrychus cinnamomeus.**

*a.* ?.

This was the only specimen seen of the Cinnamon Bittern.

**Astur trivirgatus.**

*a.* ♀ imm.

The Crested Goshawk seems to be rare judging by the records. I only saw one specimen late in the evening in a small opening in the forest. It was busy devouring a small bat.

**Spizaëtus limnaëtus.**

*a.* ♀ ad.

Several specimens of the Changeable Hawk-Eagle were seen. They were always along the Iwahig River and perched on a dead branch of a tree, but were by no means common.

**Spilornis bacha.**

*a.* ♂ ad. ; *b, c.* ♀.

The Malay Serpent-Eagle is tolerably common.

**Haliaëtus leucogaster.**

*a.* ♀ ad.

The White-breasted Sea-Eagle is a very common species, noticed chiefly along the coast. During the heat of the day a pair of these birds used to circle round over the forest on high ground. At first I thought they might be *Pitheco-phaga*, as the coloration in the distance is similar. Subsequently, on seeing *Pitheco-phaga* in life, I found the two birds have not the slightest resemblance to each other on the wing, the former sailing in a buzzard-like manner, whilst the latter exactly resembles a greatly-magnified



Sparrow-Hawk (*Accipiter nisus*). When viewed from below, the large fan-shaped wings, long tail, and white underparts are easily discernible. The beat of the wings is rather slow and ponderous. The specimen above-mentioned was presented to the Exeter Museum, where it has been mounted.

**Cacatua hæmaturophygia.**

*a.* ♂ ad.; *b.* ♀; *c.* ?.

The Philippine Cockatoo is one of the commonest birds on the island as well as one of the most destructive. When the corn is ripening large flocks descend and do an immense amount of harm. Late in the evenings I saw some dead trees white with the birds, and was told that they roosted there. They are said to be good eating, but I did not try them.

**Prioniturus cyaneiceps.**

*a, b, c, d.* ♂; *e, f.* ♀.

The Blue Racket-tailed Parrakeet is generally seen along the edges of the forest. Occasionally a small flock will cross an open clearing. At such times their flight is wonderfully swift.

**Tanygnathus lucionensis.**

*a.* ♂; *b, c.* ♀.

This was the first species I shot on landing. The Philippine Green Parrot is quite common, occurring in forest and near open spaces.

**Eurystomus orientalis.**

*a, b, c, d.* ♂; *e, f, g.* ♀.

The Broad-billed Roller is another very common and conspicuous bird. It is frequently observed on dead trees or tree-stumps. It was also met with in the forest. Several specimens shot had been feeding on bright green beetles, which they capture on the wing.

**Pelargopsis gouldi.**

*a.* ♂ ad.; *b.* ♀ ad.

Gould's Stork-billed Kingfisher is fairly common on the Iwahig River. I found it tame, but did not see them feeding.

**Alcedo bengalensis.**

*a.* ♂; *b.* ♀.

The Asiatic Kingfisher is common and generally distributed.

**Alcedo meninting.**

*a.* ♂ ad.

The handsome Malayan Kingfisher was only seen on the small streams on the higher ground. It was usually perched in small bushes overhanging the water, occasionally darting in after a small fish.

**Ceyx euerythra.**

*a.* ♀ ad.

The Little Red-backed Kingfisher was noticed both on the Iwahig and small streams. It spends a great deal of time plunging into the water to catch aquatic insects and small fish. I frequently noticed it in company with *Alcedo meninting*.

**Halcyon coromandus.**

*a.* ? juv.

The Ruddy Kingfisher appears to be scarce. I only once saw a specimen, and that was on the Iwahig. This young bird, which had not long left the nest, was snared by natives in the forest.

**Halcyon chloris.**

*a.* ♂ ad.

Very common. Found frequenting coco-nut plantations.

**Caprimulgus manillensis.**

*a.* ♀ ad.; *b.* ? juv.

The Manila Nightjar was only seen twice, on each occasion late in the evening. There are two specimens in the National Collection, obtained by Steere at Puerta Princesa in Sept. 1887. It is probably common, though difficult to find, as the few records show.



**Collocalia fuciphaga.**

*a, b.* ♂; *c.* ♀; *d.* ?.

Thunberg's Swiftlet is very common, and was noticed daily flying over the penal settlement and edges of the forest.

**Collocalia troglodytes.**

*a.* ♀ ad.

The Pigmy Swiftlet, though common, was frequently flying high and rather difficult to secure.

**Surniculus lugubris.**

*a, b.* ♂ ad.; *c, d, e.* ♀ ad.; *f.* ♀ juv.

The Glossy Drongo-Cuckoo is a common species, frequenting open clearings where there are scattered bushes.

**Eudynamys mindanensis.**

*a.* ♂ ad.; *b.* ♀ ad.

♂. Iris red, bill greenish yellow, legs plumbeous.

♀. Iris red, bill light horn, legs plumbeous.

The Philippine Koel is unquestionably a bird of very variable plumage. The primaries on some specimens sexed female show one wing quite dark, whilst the other is regularly barred. Whitehead's young female in dark plumage, resembling a male, is quite a young bird. Two feathers of the scapulars are slightly barred with brown. In connection with this I may mention that there is a specimen collected by Dr. Steere in Mindanao and sexed male. This is also a completely dark bird, but has new tail-feathers, not fully grown, which are barred with reddish brown. Until further material is received with the sexes correctly determined, the phases through which this bird passes cannot be finally decided. These birds are tolerably common in Palawan, very noisy and not easy to procure. I found that the easiest way to secure specimens was by keeping quiet and hidden and imitating their notes. Both birds shot were feeding on large round berries.

**Centropus sinensis.**

*a, b.* ♀ ad.

The Common Coucal is rather scarce, and I did not find it easy to procure; for, unless shot dead, it runs in the long grass, and recovery is hopeless. The female obtained on June 16 was nesting. The food consists chiefly of insects.

**Centropus javanicus.**

*a.* ♂ ad.; *b.* ♀ ad.

The Javan Coucal is by far the more common of the two species, and is usually met with in the long grass.

**Dryococyx harringtoni.**

*a, b, c.* ♂ ad.; *d, e, f, g.* ♀ ad.

Harrington's Cuckoo is very plentiful in the forests, where it is a conspicuous bird.

**Tiga everetti.**

*a, b, c, d.* ♂ ad.; *e, f, g.* ♀ ad.

Everett's Three-toed Woodpecker is a common forest-loving species. Stomachs of these birds contained insects and minute snails.

**Chrysocolaptes erythrocephalus.**

*a, b.* ♂ ad.

The Red-faced Golden Flicker occurs only in the forests, and, whilst tolerably common, is less often seen than *T. everetti*. The stomachs all contained remains of insects.

**Mulleripicus pulverulentus.**

*a, b.* ♂ & ♀ imm.; *c, d.* ♂ & ♀ juv.

The Great Slaty Woodpecker was nesting at the time of my visit. The nest was placed half way up a live tree and about sixty feet from the ground. The site chosen was on the edge of a forest clearing. One of the young birds was only half the size of the other, though both appeared to be of the same age. The tree was cut down, and the nest and birds, which were given to the Exeter Museum, have been well mounted by Rowland Ward.

**Thriponax hargitti.**

*a, b.* ♂ ad.

This fine large Woodpecker was met with frequently on the edges of clearings and also in the forest. These two specimens agree with one obtained by Steere at Palinog-Masabate. There seems to be a good deal of variation in the wide band of light buff across the lower back in birds from the same island, some being quite whitish.

**Pitta atricapilla.**

*a, b, c.* ♂ ; *d, e.* ♀ .

The Black-headed Pitta, though common, is seldom seen, as it prefers the dense undergrowth of the forest. Occasionally I saw it in the bed of a stream, but on the slightest alarm it took refuge in the forest. At times, when sitting quietly in the forest, one may hear it hopping about, and an odd glimpse of this lovely bird obtained. They feed on centipedes and other insects.

**Hirundo javanica.**

*a, b.* ♂ ad. ; *c.* ♂ juv. ; *d.* ♀ ad. ; *e.* ♀ juv.

The Asiatic Swallow occurred plentifully along the Iwahig, where it nests.

**Cyornis lemprieri.**

*a.* ♂ ad. ; *b, c.* ♀ ad.

Lempriere's Cyornis is a common bird in dense forest. The oviduct of a female shot on July 16 contained an egg.

**Hypothymis occipitalis.**

*a, b.* ♂ ad. ; *c, d.* ♀ ad.

The Black-naped Flycatcher is another common forest-bird. On June 14 I secured a female at 800 ft.

**Xeocephus cyanescens.**

*a.* ♂ ad.

Bill, legs, and eyelids blue; inside of mouth yellow, tongue green.

I found the Large Blue Flycatcher fairly common in swampy places. Col. White found a nest in July about six feet from the ground.

**Culicicapa helianthea.**

*a, b.* ♂ ad. ; *c.* ♀ ad.

The pretty little Yellow Flycatcher inhabits dense forest and is not at all easy to see.

**Pericrocotus igneus.**

*a, b, c, d, e, f, g.* ♂ ad. ; *h.* ♀ ad.

This series of the Fiery Minivet were all killed on the higher ground in tall trees whilst associating with Sunbirds and Flowerpeckers. They are all in worn plumage except the female.

**Ægithina viridis.**

*a, b, c, d.* ♂ ad. ; *e, f, g.* ♀ ; *h.* ?.

The Black-winged Iora occurs plentifully, and its bright yellow plumage renders it conspicuous. All the specimens are in nice fresh plumage.

**Chloropsis palawanensis.**

*a, b, c, d.* ♂ ad. ; *e.* ♀ ad.

The pretty Palawan Leafbird, though common on the island, was only noticed in the clearings where isolated bushes have grown up. Here it may be seen feeding on small fruits, in company with the small Black Cuckoo (*Surniculus lugubris*). It is difficult to skin, as the feathers fall out on the slightest touch.

**Irena tweeddali.**

*a, b, c, d, e, f.* ♂ ad. ; *g.* ♂ imm. ; *h, i, j, k.* ♀ ad.

Tweeddale's Fairy Bluebird is one of the commonest as well as one of the most beautiful birds occurring in Palawan. It is found chiefly on the higher ground along the streams ; here it keeps to the dense-foliaged trees and bushes, feeding on greenish berries and other fruit. The young male, shot on June 22, is in a very interesting stage of plumage, changing from that of the female to that of the male. Bright blue is appearing on the upper surface, particularly on the upper tail-coverts ; whilst the throat is mottled with black and the under tail-coverts are blue as in the adult.

**Microtarsus melanocephalos.**

*a, b, c, d, e.* ♂ ad. ; *f.* ♂ juv. ; *g.* ♀ ad.

The handsome Black-headed Bulbul is tolerably common, occurring in the forests and feeding on berries.

**Trichophorus frater.**

*a, b, c.* ♀ ad.

The Grey-throated Hairy Bulbul is another fairly common species, and was met with in the forests.

**Trichophorus palawanensis.**

*a, b, c, d.* ♂ ad. ; *e, f.* ♀ ad.

Another very common bird, found feeding on fruit in the forests.

**Pycnonotus cinereifrons.**

*a, b, c, d.* ♂ ad. ; *e.* ♀ ad.

The Ashy-fronted Bulbul occurs plentifully along the streams, feeding on insects, small fruits, and berries.

**Anuroptis cinereiceps.**

*a.* ♂ ad.

The Ashy-headed Wood-Babbler appears to be very rare. I only saw the specimen obtained. It might be easily overlooked, for it creeps about in dead brush and fallen tree-tops which have become overgrown with grass. Had I not been climbing through this tangle I should not have seen it. There are six examples of this species in the National Collection—five males and one female (Everett's type), which latter, when compared with the males, seems to differ slightly by being paler on the upper surface.

**Mixornis woodi.**

*a, b, c, d, e.* ♂ ad. ; *f, g.* ♀.

The Palawan Tit-Babbler occurs in thick bush, and appears to subsist entirely on insects. It is one of the commonest birds and has a harsh note.

**Kittacincla nigra.**

*a, b, c, d, e.* ♂ ad. ; *f.* ♀ ad.

McGregor states that the adult male and female are alike.

There is, however, a considerable difference between the sexes, the female being paler throughout and having more white on the abdomen. Paired birds were frequently seen, and the sexes are easily distinguished in the field.

The Palawan Black Shama is common in the undergrowth of the forest, and is, on account of its lovely song, pied plumage, and graceful appearance, one of the most attractive birds on the island.

***Locustella ochotensis.***

*a.* ♂ ad.

The Yellow Grasshopper-Warbler does not appear to have been previously recorded from Palawan, where it occurs on migration. This specimen was found in a patch of sweet potatoes.

***Orthotomus ruficeps.***

*a, b.* ♂ ad.

The Rufous-headed Tailor-bird is another very common species, which I found, in company with *Mixornis woodi*, hunting in the dense bushes for insects.

***Artamus leucorhynchus.***

*a.* ♀ ad.

Although I saw numbers of these birds in Luzon perched on telegraph wire and poles—and it occurs plentifully on most of the islands—the White-bellied Swallow-Shrike is nevertheless very scarce in Palawan. I only saw one pair, near the penal settlement. It feeds after the manner of a Bee-eater, and prefers the open ground where there are dead trees.

***Pardaliparus amabilis.***

*a.* ♂ ad.; *b.* ♂ juv.; *c.* ♀ ad.; *d.* ♀ juv.; *e.* ?

The specimens here enumerated of the Palawan Titmouse are a family which I found in a swamp along the Iwahig River. They were at the time being fed by their parents. It does not appear to be common, as it was the only occasion on which I met with the species.

**Callisitta palawana.**

*a.* ♂ ad.; *b, c, d.* ♀ ad.

The handsome little Palawan Nuthatch is fairly common in the forests, usually in company with other birds.

**Dicæum pygmæum.**

*a.* ♂ juv.; *b.* ♀ juv.

The Pygmy Flowerpecker was noticed in the coco-nut plantations hunting for minute insects, on which it feeds. It was by no means scarce and was observed daily.

**Prionochilus johannæ.**

*a, b.* ♂ ad.; *c.* ♂ juv.; *d, e, f, g.* ♀ ad.; *h.* ♀ juv.; *i.* ?.

The Palawan Flowerpecker always forms a part of the "bird parties" that go trooping through the forest searching for insects. It is an extremely pretty little bird and very common.

**Chalcostetha calcostetha.**

*a.* ♂ ad.

The pretty Copper-breasted Sunbird is not plentiful. A few birds were seen along the Iwahig River. They were shy and frequented the swamps, and, when shot, were difficult to recover.

**Æthopyga shelleyi.**

*a, b, c, d, e, f.* ♂ ad.; *g, h, i.* ♀ ad.

Shelley's Sunbird is very common, but was found more plentifully on the higher ground in thick forest-trees. It is a very pretty and sociable little bird, and was never observed except in company with other birds.

**Cinnyris sperata.**

*a, b, c.* ♂ ad.; *d.* ♀ ad.

The very beautiful Red-breasted Sunbird is common, and was found in the forest on both high and low grounds.

**Cinnyris aurora.**

*a, b.* ♂ ad.; *c.* ♀ ad.

The Orange-breasted Sunbird is the commonest species on the island.



**Anthreptes malaccensis.**

*a, b, c, d, e, f.* ♂ ad.; *g.* ♂ juv.; *h, i.* ♀.

The Brown-throated Sunbird occurs plentifully along the Iwaling River. It seems to prefer the damp ground. The two females are grey above, with a yellowish-green wash on rump and wings. The under surface is grey washed with yellow; the breast and abdomen bright yellow.

**Arachnothera dilutor.**

*a.* ♀ ad.

The Pale Spider-Hunter seems to have been recorded only from Palawan, where it is not plentiful. This specimen was shot whilst feeding in a vine-covered bush along a small stream on the higher ground. It was also noticed in the mangroves.

**Munia jagori.**

*a.* ♂ ad.; *b.* ♀ ad.

Small flocks of the Philippine Weaver—from twenty to thirty birds—were seen in the long grass feeding on the ripe seed. Adults and young in brown dress were seen together on June 12. The adult male differs from the female in being of a deeper and richer colour throughout.

**Oriolus xanthonotus.**

*a, b, c, d.* ♂ ad.; *e, f, g.* ♀ ad.

The Black-headed Oriole was noticed in the forest, where it is quite plentiful, and may be seen climbing up the various vines in a Woodpecker-like fashion. All birds shot in June and July were feeding on insects.

**Chibia palawanensis.**

*a, b, c, d, e.* ♀ ad.

A very common Drongo, seen chiefly along the edges of the forest.

**Buchanga palawanensis.**

*a, b.* ♂ ad.; *c.* ♂ juv.; *d, e.* ♀; *f.* ?.

Irides red, rarely brown.

As McGregor says, Whitehead was mistaken about the colour of the eyes, and the other points of difference seem of

little value, as the birds differ so much in size and coloration, some being black over the nostrils and others quite pale. As to wing-measurements, there seems a little difference, but one of my specimens has a wing quite as large as one marked *B. leucophaea*. All my birds are in worn plumage, which gives them a mottled appearance.

**Lamprocorax panayensis.**

*a.* ♀ ad. ; *b.* ♂ juv.

The Philippine Glossy Starling is plentiful. The young bird had fallen from the nest at the foot of a dead tree. It was unable to fly.

**Eulabes palawanensis.**

*a, b.* ♂ ad. ; *c, d.* ♀ ad.

The Palawan Wattled Myna is a common and conspicuous bird. It was noticed in pairs, and generally found where there was dead timber standing.

**Corvus pusillus.**

*a.* ♂ ad.

This is a curious little Crow, having a voice like a frog. It was very common, particularly near the Iwahig landing.

XXX — *The Bird-Caves of the Bermudas and their Former Inhabitants.* By Dr. R. W. SHUFELDT, Washington, D C.

(Plate XX.)

EARLY in the month of August, 1915, Dr. F. A. Lucas, Director of the American Museum of Natural History of New York City, invited my attention to the fact that there was, at that time, an interesting collection of fossilized bones of birds from the Bermuda Islands at that institution, which stood in need of study and description ; he desired to know if I would give them the required attention. This invitation I was glad to accept, as it opened up for me research along a line in which I had never before been engaged, and in due course the material—a most valuable